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(54) **Valve, core sampling apparatus and method**

(57) A selectively operable downhole valve for use with core sampling apparatus, the valve comprising a throughbore through which a first body may pass, and an obstructing member which is capable of selectively obturating the throughbore, the obstructing member being arranged to open or close the throughbore by movement of the first body with respect to the valve. A core sample of the formation may then be obtained and retrieved from the bore under pressure since the valve seals the bore downhole. Retrieving the sample under pressure maintains the integrity of the core sample so that subsequent analysis of the sample will more closely reflect the true characteristics of the formation.

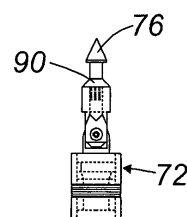
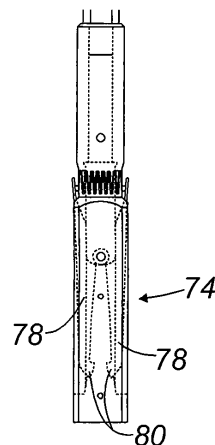


Fig. 8A

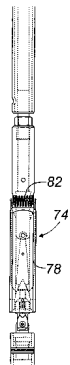


Fig. 8B

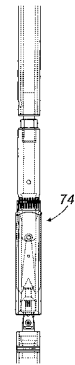


Fig. 8C

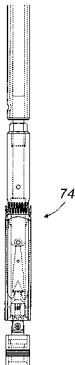


Fig. 8D

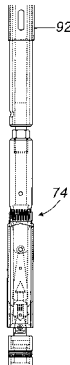


Fig. 8E

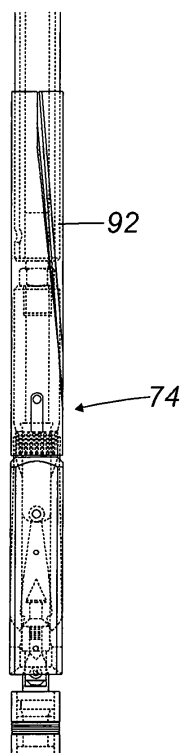


Fig. 8F

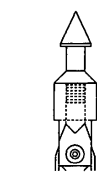
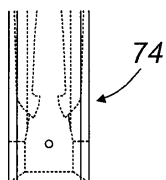


Fig. 8G



EUROPEAN SEARCH REPORT

Application Number
EP 09 25 0892

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 6 216 804 B1 (AUMANN JAMES T [US] ET AL) 17 April 2001 (2001-04-17) * the whole document * * see USPTO Office communication 28-4-2011 *	1-7, 10-13,15	INV. E21B25/08 E21B31/18 E21B33/072 E21B34/00
X	US 2 162 578 A (HACKER MARCUS L) 13 June 1939 (1939-06-13) * the whole document *	1-3,5,7, 10-14	
X	GB 693 379 A (ANGLO IRANIAN OIL CO LTD; CHRISTOPHER WILLIAM OTWAY) 1 July 1953 (1953-07-01) * the whole document *	1,2,7-14	
X	US 4 142 594 A (THOMPSON CHARLES M ET AL) 6 March 1979 (1979-03-06) * the whole document * * figures 14,16-20 *	1	
X	US 4 230 192 A (PFANNKUCHE FRITZ T) 28 October 1980 (1980-10-28) * column 5, line 6 - column 6, line 34 * * the whole document *	1	TECHNICAL FIELDS SEARCHED (IPC) E21B
A	EP 0 985 798 A2 (HALLIBURTON ENERGY SERV INC [US]) 15 March 2000 (2000-03-15) * paragraphs [0036] - [0040] * * The lever arm hinge 40 is spaced apart from the flapper valve hinge 34. The effective length of the lever arm 36 is the distance between the flapper valve hinge 34 and the lever arm hinge 40.; the whole document *	6	
A	US 2 073 263 A (HOHMANN HENRI M ET AL) 9 March 1937 (1937-03-09) * the whole document *	8,9	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 17 February 2012	Examiner van Berlo, André
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 09 25 0892

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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17-02-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6216804 B1	17-04-2001	AU 5097299 A	21-02-2000
		US 6216804 B1	17-04-2001
		US 6230825 B1	15-05-2001
		US 6305482 B1	23-10-2001
		US 6378631 B1	30-04-2002
		US 2002033281 A1	21-03-2002
		WO 0006866 A1	10-02-2000
US 2162578 A	13-06-1939	NONE	
GB 693379 A	01-07-1953	NONE	
US 4142594 A	06-03-1979	BE 868774 A1	03-11-1978
		US 4142594 A	06-03-1979
US 4230192 A	28-10-1980	NONE	
EP 0985798 A2	15-03-2000	NONE	
US 2073263 A	09-03-1937	GB 451825 A	12-08-1936
		NL 42651 C	17-02-2012
		US 2073263 A	09-03-1937